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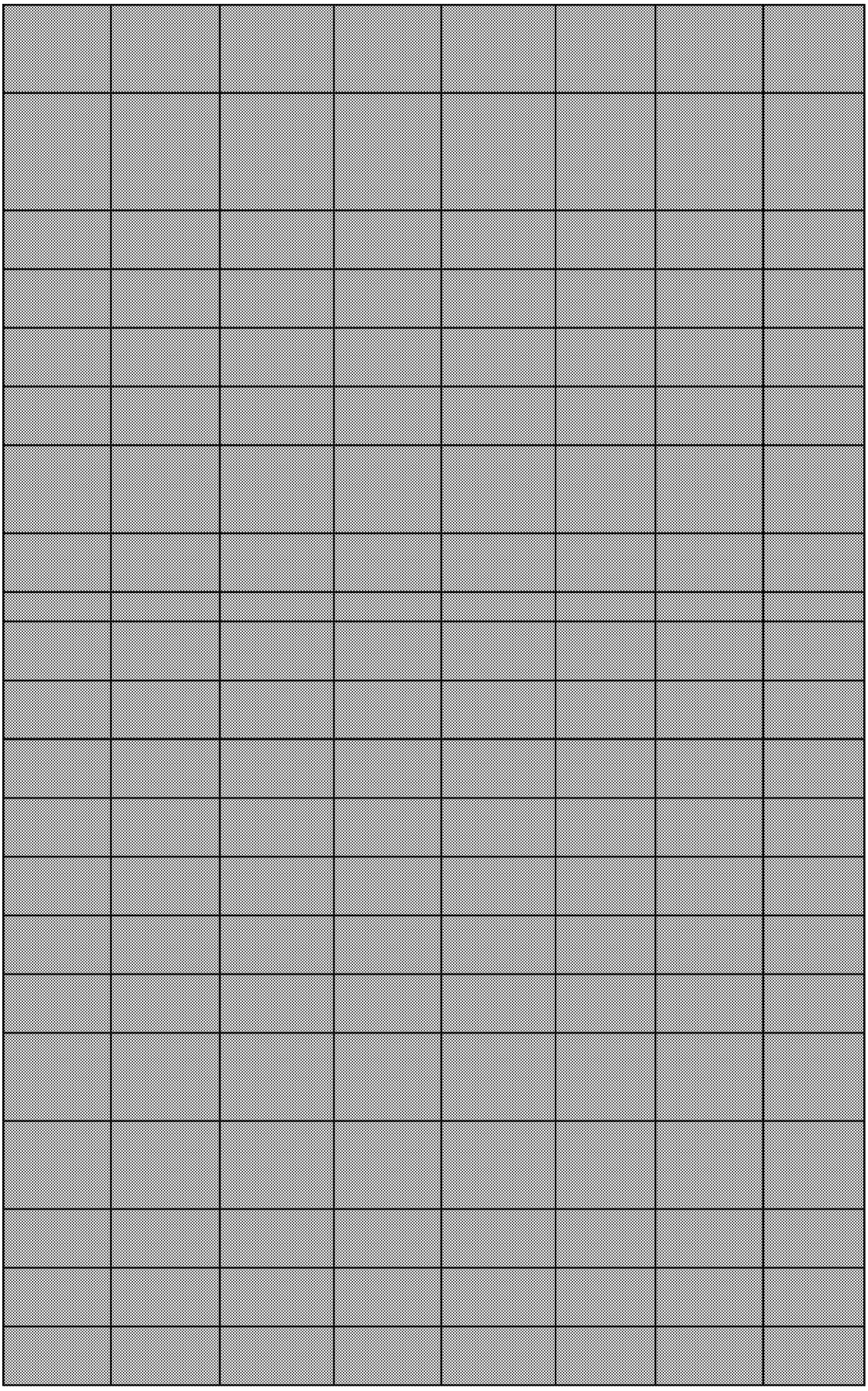

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Reactive oxygen species (ROS) are involved the damage of living organisms under environmental stress including UV radi
This in vitro study investigated the formation of hydroxyl radicals (*OH) under anaerobic conditions through the direct re
Copper has been suggested to facilitate oxidative tissue injury through a free radical-mediated pathway analogous to the
Intermolecular electron and energy transfer from a light-harvesting metallodendrimer [Ru[bpy(C-450)(4)](3)](2+), where
Ferredoxin NADP(H) oxidoreductases (FNR) are flavoenzymes that catalyze the electron transfer between NADP(H) and a
With the end goal of incorporating the unique structural and physical properties of dendrimers into supramolecular asse
Several oxidative and non-oxidative stresses were applied to two transgenic strains of Drosophila melanogaster (designa
Oxygen free radicals and hydroperoxides have been postulated to play a causal role in the aging process, implying that ar
Superoxide dismutases (SOD) play a major role in the intracellular defense against oxygen radical damage to aerobic cells
Eight strains of C. elegans, including seven recombinant inbred (RI) strains with mean life spans ranging from 10.9 to 28.8
The extended longevity phenotype (ELP) characteristic of our selected long-lived strain of Drosophila is brought about by
The random, free-radical-mediated oxidations of biological molecules result in membrane degradation leading to cellular
Mutations in the age-1 gene double both the mean and maximum life span of Caenorhabditis elegans. They also result in
Reactive oxygen species have been postulated to be a causal factor in the aging process due to their ability to inflict mole
The metallothionein system in Drosophila melanogaster is composed of two genes, Mtn and Mto. In order to compare th
The w/w+ somatic mutation and recombination test (SMART) of Drosophila melanogaster is a fast and low cost in vivo as
That free radical destruction of macromolecules is a basis of aging and age-related diseases has considerable experiment
Mutants of Drosophila melanogaster that lack Cu/Zn superoxide dismutase or urate are hypersensitive to reactive oxyger
A spontaneous mutant of mev-3 of the nematode Caenorhabditis elegans was isolated on the basis of its resistance to m
Glutathione reductase catalyzes the conversion of the oxidized form of glutathione to regenerate reduced glutathione, w

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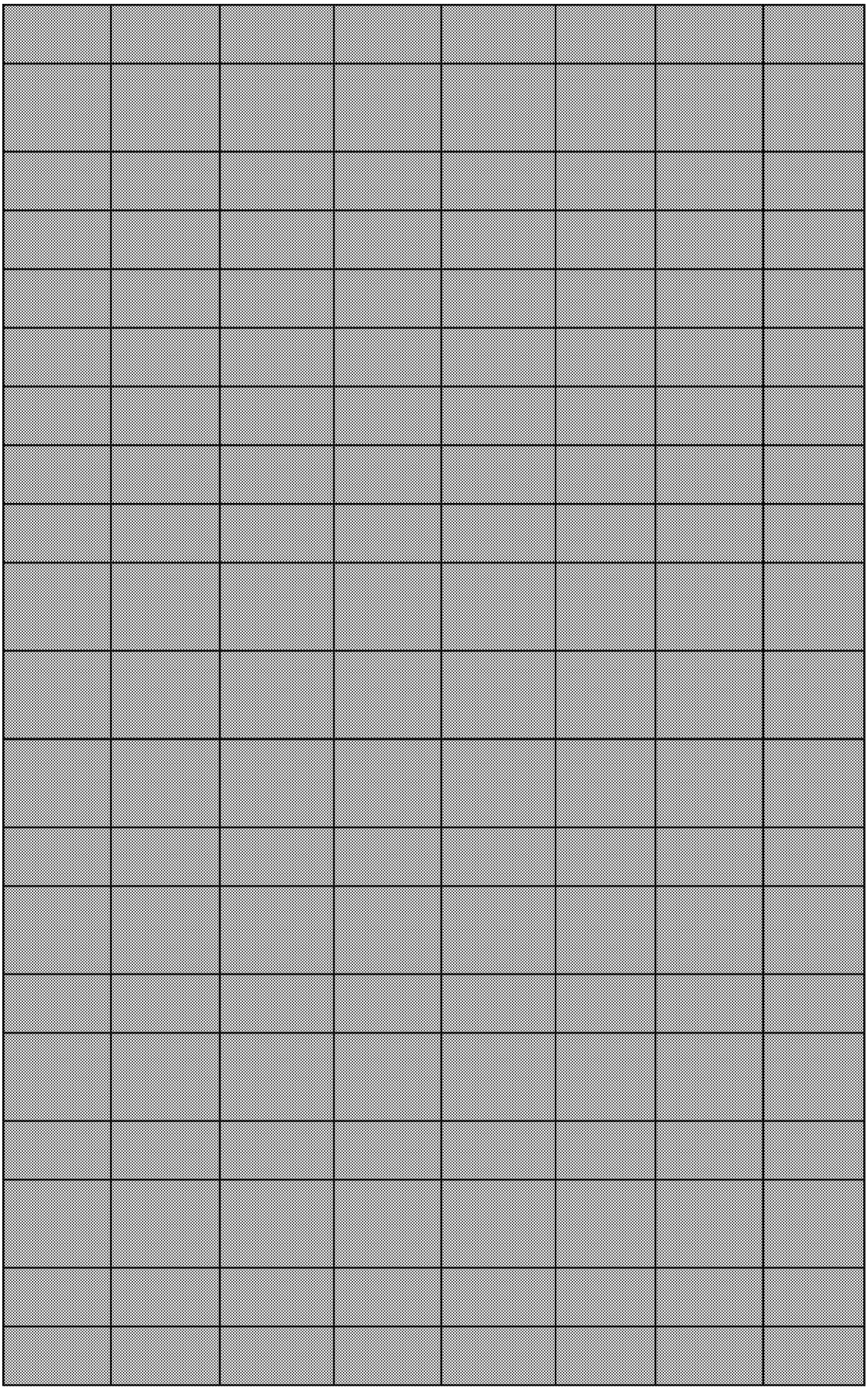

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The biological effect of antioxidants which showed high superoxide-scavenging (SOS) activity in an in vitro analysis was e
The role of the citric acid cycle enzyme NADP-dependent isocitrate dehydrogenase (IDH-NADP) and its allele product var
Recent genetic analyses of longevity in animals have revealed that long-lived strains are more tolerant to environmental
Toward a genetic dissection of the processes involved in aging, a screen for gene mutations that extend life-span in Dros
Cu-Zn superoxide dismutase (cSOD) is an enzyme of critical importance for the inactivation of superoxide radicals genera
Calorie restriction (R) is the only known method to delay the aging process and extend mean and maximal lifespan in rod
The somatic mutation and recombination w/w+ eye assay has been used for genotoxic evaluation of a broad number of c
Identifying the mechanisms determining species-specific life spans is a central challenge in understanding the biology of
Gene mutations in invertebrates have been identified that extend life span and enhance resistance to environmental stre
We investigated the life span of spe-10 mutant nematodes. We also tested resistance of spe-10 mutants to ultraviolet (U
Five independent populations (lines) of Drosophila melanogaster were selected for female starvation resistance. Female
The effect of deleting both catalase genes and of increased oxygen as well as paraquat (a pro-oxidant) on the replicative
Some years ago we applied simultaneously an identical regime of selection for late-life reproduction to several normal-li
1,1'-Dimethyl-4,4'-bipyridinium dichloride (methyl viologen; paraquat), an herbicide that causes depletion of NADPH and
Stress resistance is associated with longevity in Drosophila melanogaster and other model organisms used for genetic re
Aging is a universal but poorly understood biological process. Free radicals accumulate with age and have been proposed
Much attention has been focused on the hypothesis that oxidative damage plays in cellular and organismal aging. A mev
Apurinic/apyrimidinic endonuclease is a key enzyme in the process of base excision repair, required for the repair of spo
Little is known about physiological mechanisms that underlie the cost of reproduction. We tested the hypothesis that str
The present study tests the hypothesis that reproduction is correlated with decreased oxidative stress resistance. In num
In today's society, human activities and lifestyles generate numerous forms of environmental oxidative stress. Oxidative
We have developed a strategy using Drosophila as a model system to identify genes that are crucial for extension of long

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